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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,074	12/11/2006	Yoshihisa Oguchi	288614US2X PCT	6990
22850	7590	11/10/2009	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			HUYNH, PHUONG	
			ART UNIT	PAPER NUMBER
			2857	
			NOTIFICATION DATE	DELIVERY MODE
			11/10/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/573,074	Applicant(s) OGUCHI ET AL.	
	Examiner PHUONG HUYNH	Art Unit 2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9, 10, 12, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 11, 13 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/22/06 & 3/21/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Goedeke et al. (hereinafter "Goedeke") (USPN. 5,153,722).

Regarding claim 9, Goedeke discloses an arc monitor system, which is used to locate an occurred place where an arc discharge occurred in an electric facility, comprising:

a plurality of monitor cameras [cameras 60, 30 in col. 5, lines 17-39; and col. 6, lines 22-38; and for details of operation, see camera 80 in col. 7, lines 20-52] that are arranged at a plurality of places in the electric facility;

an image processing device [frame grabber 82] that individually processes images received from the monitor cameras [see Goedeke: col. 7, lines 36-52];

a control logic section [processor 84] that controls the image processing device [frame grabber 82] [also see Goedeke: col. 8, lines 10-31] [see also col. 5, lines 4-55 for controller 40 for cameras 30 and 60];

an operation device [alarm system 90] that has a display section and an operation section [audio and visual alarm], and that is connected to the control logic section [processor 84] [see Goedeke: col. 8, lines 10-28];

wherein the image processing device [frame grabber 82] and the control logic section [processor 84] extract a change in the images received from the monitor cameras [see col. 8, lines 28-64 for example for spectral signatures and spectral changes and flickering of identified sample pixels within successive stored image frames] in response to a control signal generated from the electric facility on an occurrence of the arc discharge, and then locate the occurred place of the arc discharge [see Goedeke: col. 8, lines 28-64; also see col. 5, lines 40-65].

2. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goedeke in view of KANSAI ELECTRIC POWER (JP PUB. No. 11-098628) (hereinafter "D1").

Regarding claim 10, Goedeke discloses wherein the image processing device and the control logic section, on recognizing and extracting the arc discharge, successively process a plurality of frames of the image ranging from a frame obtained before occurrence of the arc discharge [base frame] to a frame obtained after an extinction of the arc discharge [see Goedeke: col. 8, lines 36-64].

Goedeke does not disclose obtain a level and a center of gravity of the arc discharge in the successive images, and observe transitions of the level and the center of gravity, thereby locating the occurred place of the arc discharge.

D1 teaches obtain a level and a center of gravity of the arc discharge in the successive images, and observe transitions of the level and the center of gravity, thereby locating the occurred place of the arc discharge [see D1: Paragraphs [0012] and [0015]].

It would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the invention of Goedeke, to include the invention as taught by D1 to notify the information on the are center of gravity to the control station in order to locate in addition to displaying a centroid calculation result on the auto-recovery system [see D1: Paragraphs [0012] and [0015]].

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goedeke in view of Owrutsky et al. (hereinafter "Owrutsky") (USPN. 2005/0012626).

Regarding claim 12, Goedeke and Henneberry does not disclose that "wherein each of the monitor cameras includes a near-infrared camera that captures an image by near-infrared light obtained by removing visible light."

Art Unit: 2857

Owrutsky teaches that wherein each of the monitor cameras includes a near-infrared camera [night vision cameras] that captures an image by near-infrared light obtained by removing visible light [see Owrutsky: Paragraphs [0028], [0031] and [0032]].

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the invention of Goedeke and Henneberry, to include the near-infrared cameras as taught by Owrutsky to easily detect NIR (near-infrared) emission from flames, which is not always the case for regular video cameras [see Owrutsky: Paragraph [0028]].

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goedeke in view of Henneberry (USPAP. 2007/0055889).

Regarding claim 15, Goedeke discloses that wherein each of the monitor cameras includes a panning camera [cameras 60, 30 in col. 5, lines 17-39; and col. 6, lines 22-38; and for details of operation, see camera 80 in col. 7, lines 20-52. Cameras 30, 60 or 80 are video camera, i.e. panning camera].

However, Goedeke does not disclose that the camera "is turned toward the occurred place of the arc discharge when the occurred place of the arc discharge is

Art Unit: 2857

located, and then captures an image immediately after the occurrence of the arc discharge”.

Henneberry teaches that the camera "is turned toward the occurred place of the arc discharge when the occurred place of the arc discharge is located, and then captures an image immediately after the occurrence of the arc discharge"[see Henneberry: Paragraph [0080]: camera 635 records a video clip when an electrical fault occurs in the power system].

It would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the invention of Goedeke, to include that the camera "is turned toward the occurred place of the arc discharge when the occurred place of the arc discharge is located, and then captures an image immediately after the occurrence of the arc discharge in order to determine events that cause damage or destruction of the facility and/or power system and that to determine an overall sequence of events and propagation of electrical faults in the power system [see Henneberry: Paragraph [0080]].

5. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goedeke and Henneberry in view of JP PUB. No. 08-122399_KOKUSAI (hereinafter “Kokusai”) (translation) (hereinafter “D2”).

Art Unit: 2857

Regarding claim 16, Goedeke and Henneberry do not disclose that wherein the electric facility is a substation.

D2 teaches that wherein the electric facility is a substation [see Kokusai: Paragraph [0032]].

It would have been obvious to one of ordinary skill in the art at the time of invention, to modify the invention of Goedeke and Henneberry, to include the substation as taught by Kokusai, so that authorized personnel can locate immediately the arc discharge generation place in the substation since the picture of substation is captured and displayed [see Kokusai: Paragraph [0032]].

Allowable Subject Matter

6. Claims 11, 13 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUONG HUYNH whose telephone number is (571)272-2718. The examiner can normally be reached on M-F: 8:30AM-5:00PM.

Art Unit: 2857

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ramos-Feliciano Eliseo can be reached on 571-272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PHUONG HUYNH/
Examiner, Art Unit 2857
November 03, 2009